

**REMARKS:**

Claims 16-24 are pending in this application, with claims 18-24 being withdrawn from consideration pursuant to a combination Restriction/Election of Species Requirement (claim 24 being withdrawn involuntarily). By this Amendment, claim 16 is amended to add a clarifying term, and claim 24 (a product-by-process claim) is amended to limit it to depending from just claim 16 in view of the other claims from which it depends having been withdrawn from consideration. Applicants request reconsideration and allowance of this application in view of the following remarks (as well as the clarifying amendment).

**Restriction Requirement**

Regarding product-by-process claim 24, the Examiner notes that if the product in a product-by-process claim is the same as or an obvious variant of a prior art product, then the product-by-process claim is not patentable. Applicants note, however, that all of the method claims in the application recite certain structural features (*viz.*, the inclined or curved nature of the ends of the blades and the corresponding surface of the cover member). Therefore, barring the prior art showing those structural features, patentability of the product-by-process claim should follow automatically from patentability of the process claim from which it depends. Accordingly, Applicants again request that the Examiner consider (and allow) claim 24 on the merits.

**Claim Rejection**

Claims 16 and 17 are rejected under 35 U.S.C. § 102(b) as anticipated by Frasier et al., U.S. 5,609,471. **Regarding claim 16**, the Examiner construes the blade attachment lugs 22 in Frasier as the claim-recited blades; the Examiner relies on the disclosure at column 5, lines 38-43 of the lugs being oriented at an angle  $\Theta$  (e.g., about ten degrees relative to the axial centerline of the disk) as meeting the claim limitations regarding the free end surfaces of the blades and the corresponding inner surface of the cover member being inclined at an acute, non-zero angle relative to the axial centerline of the rotor; and the Examiner construes the temporary positioning ring 26 as the claim-recited ring-shaped cover member, the Examiner noting that using a

broadest-reasonable-interpretation approach, “the limitation of claim 16 does not preclude the removal of this cover member (26) from the assembly at a later stage of fabrication.” Applicants traverse this rejection in view of the above amendment and based on various other deficiencies in the Examiner’s efforts to read the claim language onto the Frasier disclosure.<sup>1</sup>

First, even under a so-called broadest-reasonable-interpretation approach, Applicants submit that one of skill in the art most certainly would not have interpreted the blade attachment lugs 22 in Frasier to be blades, *per se*, as recited in the claims. This is particularly true in view of the fact that Frasier itself draws a clear distinction between the blade attachment lugs 22 and the blades 16. See, for example, column 7, lines 28-42.

Second, the angle of inclination countenanced by the invention has been clarified by inserting the term “frustroconical” into the claims. This is supported, for example, by what is shown in Figure 3 of the application, where the inclined surfaces generally define an overall conical surface. Such an angle of inclination is not what is shown in Frasier. Rather, in Frasier, the countenanced angle of inclination causes the axially upstream and the axially downstream ends of the blade attachment lugs 22 to be circumferentially offset with respect to each other, as best shown in Figure 7 of Frasier.

Third, and perhaps most importantly, the Examiner apparently has lost sight of which of the elected embodiments he is supposed to be examining. According to claims 16 and 17, a disk-shaped member comprising a hub and a plurality of blades extending radially outwardly from that hub are provided, and then the disk-shaped member and the cover member are moved axially toward each other until the angled, radially outer free end surfaces of the blades and the angled inner surface of the cover member almost contact each other so as to form a butt joint with said joining material sandwiched therebetween. In Frasier, in contrast, even if the blade attachment hubs 22 were, for the sake of argument, deemed to constitute blades, Frasier does not show this aspect of the claimed invention. In particular, in Frasier, the radially outer surfaces of the blade attachment lugs are attached to the radially inner surfaces of the positioning ring 26 so as to yield a sub-assembly with radially inwardly extending members (i.e., the blade attachment

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<sup>1</sup> In other words, should the Examiner respond with a further Office Action, Applicants submit beforehand that it will not have been necessitated by Applicants’ amendment and therefore must not be made final.

lugs 22), and then the radially inward surfaces of the blade attachment lugs 22 are, after appropriate machining (see column 6, lines 28-42) joined to the smooth, radially outer, non-attachment-lug-bearing surface of the rotor disk 17.

**Regarding claim 17**, the Examiner asserts that Frasier discloses that the cover member is forced over the blades (blade attachment lugs) in an axial direction. Applicants disagree. The blade attachment lugs are individually positioned into and secured in the various “nests” 29 located around the circumference of the positioning ring 26, presumably in a radial direction. Then, after the radially inner surfaces of the blade attachment lugs have been machined, they are positioned relative to the disk 17 by means of a slip fit, not a forced fit. See column 6, line 42 of Frasier. Thus, Frasier does not disclose anything with respect to applying pressure in an axial direction to force the components toward each other.

Thus, for any of these reasons, Frasier does not anticipate the claimed invention, and Applicants request that the rejection be withdrawn.

In view of the foregoing, Applicants submit that claims 16 and 17 are in condition for allowance, and timely Notice to that effect is respectfully requested.

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The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437, referencing Attorney Docket No.: 7589.176.PCUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner may directly contact the undersigned by phone to further the discussion.

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